

## NESTED STATOR COILS FOR PERMANENT MAGNET MACHINES

### ABSTRACT

An arrangement of coils of different configurations for use in the stator of a slotless radial gap electromotive machine is described. The coils include coils of a first configuration and a second configuration. Each coil includes longitudinal sections and circumferential sections that form a substantially rectangular opening in the coil. The coils are nested together along the

- 5 inside of a stator core so that the longitudinal sections of each coil of the first configuration are disposed in the rectangular openings of neighboring coils of the second configuration, and the longitudinal sections of the coils of the second configuration are disposed in the rectangular openings of neighboring coils of the first configuration. Other configurations of coils can be nested together inside the stator core to provide one or more additional layers of stator coils.